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# A Study of Pupil Self-Concepts in a Three-Track Elementary School

Ronald M. Jones

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A STUDY OF PUPIL SELF-CONCEPTS IN A  
THREE-TRACK ELEMENTARY SCHOOL



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A Thesis  
Presented to  
the Faculty of the Department of Education  
Central Washington State College

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In Partial Fulfillment  
of the Requirements for the Degree  
Master of Education

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by  
Ronald M. Jones  
July, 1968

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SPECIAL  
COLLECTION

170997

APPROVED FOR THE GRADUATE FACULTY

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## CHAPTER I

### STATEMENT OF THE PROBLEM AND DEFINITIONS OF TERMS USED

Many plans of elementary school class organization have been utilized in an effort to make the child's learning experience most fruitful, to best utilize the talents of the teaching personnel, and to take full advantage of equipment and facilities.

One such method of organization is the three-track system, used in many school districts throughout the nation. This form of homogeneous ability grouping is in contrast to the more widely used heterogeneous ability grouping.

Many arguments are forwarded by the defenders of either organization. A modicum of evidence has been accumulated relating to self-concept differences in the products of these respective systems.

#### I. THE PROBLEM

Statement of the problem. It was the purpose of this study: (1) to measure self-concepts of children who have been in a homogeneous class grouping in a three-track elementary school, (2) to measure self-concepts of the same children after one year of experience in a heterogeneous class grouping, and (3) to present a comparison of these two attitude surveys.

Importance of the study. Positive self-concepts are frequently regarded as being of extreme importance in the effective functioning of man.

Ruth Strang quite strongly points this out:

Psychologists have increasingly emphasized the importance of studying the way an individual perceives a situation. Many recent trends, such as that toward concern with the self-concept and "self-consistency," focus on this emphasis. The way the person perceives himself in relationship to the situation largely determines how he behaves and what he learns (21:3).

Possibly the most critical period in a human life regarding these factors is during the early years of childhood when concepts are formed, and concepts are built on concepts. It would appear useful if educators could know more of the self-concept patterns of children during the early school years.

Since the objective of both heterogeneous and homogeneous class organization is the most effective instruction of children, the importance of these patterns as they relate to the respective plans of organization should need no explanation.

## II. DEFINITIONS OF TERMS USED

Ability Grouping. For the purposes of this study, ability grouping refers to grouping of school children into general categories for purposes of instruction. Criteria for ability grouping include age, intelligence, and achievement

levels as determined by standardized test scores, teachers' judgments, and results of teacher-made tests.

Heterogeneous Grouping. Heterogeneous grouping refers to grouping of school children for purposes of instruction on the basis of approximate age only.

Homogeneous Grouping. Homogeneous grouping, as used in this study, is synonymous with ability grouping.

Three-Track Grouping. Three-track grouping, as used in this study, means homogeneous grouping according to three levels: high, middle, and low.

## CHAPTER II

### REVIEW OF THE LITERATURE

#### I. HOMOGENEOUS GROUPING

A great deal has been written regarding criteria other than chronological age as a basis for the grouping of students (10:365). Educational leaders have long theorized about and experimented with various methods of homogeneous class grouping (17:151). In most cases, homogeneous grouping has meant grouping students according to mental ability or achievement in subject matter areas (2:90). Standardized tests and teachers' judgments are the common methods of determining mental age. These, in addition to teacher-made tests, are generally used to ascertain pupil achievement levels (10:365).

In a nationwide sample, school superintendents were asked their preference of age grouping or ability grouping. Forty and three-tenths percent of those who responded indicated that they preferred ability grouping over the typical age-grade program (16). The extent of ability grouping in elementary schools in the United States is shown in Table I (3:68). Table I indicates that only 25.7% actually practice homogeneous grouping in grades 1-6 and 34.4% in grades 7-8. It appears that a larger percentage of administrators favor ability grouping than actually operate under such a program.

TABLE I  
EXTENT OF ABILITY GROUPING IN URBAN PLACES  
WITH POPULATION ABOVE 2,500  
BY U.S. PERCENTAGES

	Grades 1-6	Grades 7-8
Heterogeneous	72.1%	60.0%
Homogeneous	16.9%	34.4%
Heterogeneous 1-3 Homogeneous 4-6	4.9%	
Homogeneous 1-3 Heterogeneous 4-6	3.9%	
Other or not given	2.2%	5.6%

Source: Stuart E. Dean, Elementary School Administration and Organization (Washington, D.C.: U.S. Department of Health, Education, and Welfare, 1960), p. 68.

The entire purpose of homogeneous grouping, based on any criteria whatever, is to reduce the range of individual differences to facilitate instruction (20:53). Grouping, according to Goodlad and Anderson (8:90), might be on the basis of ability, achievement, interest, work and study habits, or any combination of these. It must be pointed out that Goodlad and Anderson are not proponents of grouping in any but the loosest of terms, their arguments being for a non-competitive, continuous-progress plan, which they maintain will best fill the needs of all the pupils.

Possibly the best argument for homogeneous grouping is made by Ruth Strang (22:397) who states, "Children are not equally educable." She supports this by reporting that approximately 15 to 18 percent of elementary school children fall in the "dull-normal group," having intelligence quotients between 70 or 75 and 90 (22:397).

Neither the highest nor the lowest intelligence group is necessarily disadvantaged from placement in a homogeneous class grouping according to Strang, who reports:

An unsuitable curriculum is at the root of many behavior problems. The cause of failure is not the intelligence level per se, but rather the relation between the child's mental ability and unrealistic expectations--too high or too low--which the home and the school have for him. The school curriculum may be unsuited to the particular pupils. For example, the grade placement of boys ten to seventeen years old in a corrective school was, on the average, two years above their achievement. This meant that these boys, day in

and day out, were expected to do work beyond their ability; they were constantly experiencing failure.

Gifted children, on the other hand, may react to a school situation that is frustrating and blighting by doing poor work in their subjects, causing disturbance by talking back to the teachers, and acting smart. When put in a class with an understanding teacher who provides suitable reading materials and gives them instruction in any fundamentals in which they are weak, they usually make rapid progress academically and socially (22:438).

It is noted that a basic problem for each group is pointed out: the possibility of constant failure for members of the slow group and the possibility of boredom for the especially bright (4:130).

Grieder offers the following points for and against homogeneous grouping:

Arguments for homogeneous grouping usually include the following:

1. Homogeneous groups are usually taught by the same methods as are heterogeneous groups.
2. Grouping saves the teachers' time and energy.
3. More subject matter is covered in the same period of time.
4. Poor students are not discouraged.
5. Specially trained teachers can be employed for poorer pupils.
6. A homogeneous group can be taught as an individual.
7. The brighter pupils are encouraged.
8. Loafing on the part of superior pupils is reduced or eliminated.

There are certainly arguments against homogeneous grouping. Among such arguments are the following:

1. No basis for grouping has been developed which is sufficiently objective.
2. Unwholesome competition may be engendered.
3. People are not strictly grouped in their life occupations according to ability.

4. Status distinctions, characteristic of a class society, may be fostered.
5. Groups cannot be formed which are homogeneous in each curriculum area because abilities of a single student vary from subject to subject.
6. No practical way has been found to group on the basis of special ability.
7. Grouping according to ability often causes jealousy and resentment on the part of pupils and parents (10:366).

Other writers have compiled similar lists of advantages and disadvantages of homogeneous grouping including Henry J. Otto (17:274-5) and Emory Stroops and Russell E. Johnson (23:74).

Throughout the literature pertaining to grouping, an oft-occurring charge of "undemocratic" is heard. Martin Mayer discussed this and pointed out, in 1961, that both France and the Scandanavian countries prohibit ability grouping as "undemocratic" (13:39).

Further argument by Gertrude Noar in 1964 follows the "undemocratic" theme:

Segregation for any reason is undemocratic. Moreover, children soon develop self-images to correspond with the teacher's expectations and thereafter behave, like all of us do, as they perceive themselves to be. Nothing blocks learning more effectively than seeing oneself as a non-learner (14:197).

In response to the previously named article, Alice Hall wrote a rebuttal the following year:

Each individual shall have an equal opportunity for the best education for him [italics in the original].

Lumping students together heterogeneously is socialism, not democracy.



Should we forget the fact that Johnny is in a classroom where he can not read the text? Should we ignore the fact that Johnny has already read much of the material on his own and needs more advanced work?

Ability grouping allows equal opportunity for each child regardless of race, color, creed, or physical age. Why not be truly democratic?

Others, including Sachs (19:33), Olson (15:204), and Stroops and Johnson (23:82) have recently restated these basic arguments.

Of some interest might be consideration of possible de-facto segregation through ability grouping and through certain current special programs such as project "Head-Start." Whatever position one takes on ability grouping as "democratic" or "undemocratic," certain aspects of grouping may appear useful or advantageous.

Most authorities seem to agree that any decision to group according to ability and/or achievement must consider the relative importance of all the positive and negative factors. The summation of all the pros and cons is an extremely subjective area and no specific criteria have been established related to the issue of grouping. It is within the province of school-community relations that the decision to group or not to group must be made (24:71-2).

## II. THE CHILD'S SELF-CONCEPTS

"Adolescents show a wide variation in physique, in physiological maturing, attitudes, and in behavior" (23:1).

Strang continues later:

A positive attitude toward the self in all aspects of life is a most important determinant of successful life adjustment. The individual's concept of himself is at the core of his thinking, motivation, and behavior (23:78).

Many recent trends in psychology have emphasized the importance of the way an individual perceives a situation. Psychologists have been increasingly concerned with the "self-concept" and "self-consistency" (6:56).

Self-concepts are formed from a broad base with both positive and negative factors having their influence. This is confirmed by Lee and Lee:

An individual's self-concept is affected by his perceptions. A most important question is, how does a child arrive at his self-concept, and how can it be changed? Just as he bases his understanding of the world on his perceptions of it, so the child's understanding of himself is based on the way he seems to himself. He evaluates his accomplishments not as others may see them, but in the light of his expectancies for himself. We call this his level of aspiration. And how does he arrive at this? Probably the strongest influence is what he sees as other people's expectancies for him. This may be taken from indirect comments, statements regarding other people, as well as things said to him directly. "You would certainly think Jimmy would be able to do that by this time." It may be based on others' achievements which bring coveted rewards (12:31).

A second source of aspiration dealt with by Lee and Lee is the child's own success at the expected tasks. If in his assigned school work he is usually unsuccessful, his

level of aspiration becomes much more unrealistic than if he generally succeeds. Depending on many factors, he may expect too great an achievement level or he may expect less of himself than he can accomplish. This type of situation can lead to any number of complicating results.

The situation might well be considered in the light of Festinger's "theory of cognitive dissonance" (7). The importance of understanding the child's self-concepts may require greater emphasis. Undoubtedly, self-concepts are much harder to change than they are to develop in the first place. It must take many times the number of favorable experiences to change a self-concept lowered through a few unfavorable experiences. In addition, an already low self-concept is probably more easily damaged than a rather high one. Ira J. Gordon further emphasized the importance of the child's "personality organization and self-esteem" (9:7).

The necessity for attainable goals for each child is beyond question. A successful school experience is not possible under any other circumstance. A general goal of our educational system is building the child's self-esteem and increasing his general feeling of adequacy. This is supported by Strang:

A child's learning is influenced by his concept of himself. If he puts no value on himself or thinks of himself as a failure, he meets each learning situation limply; he has no zest for learning. A school child's self-confidence grows with the realization that the

group needs him and that he has a place there whether he is good or bad, bright or dull, large or small. A child's sense of adequacy as a person grows as he experiences success in human relations and in suitable tasks (22:305-6).

### III. SUMMARY

Whether to group children according to any homogeneous plan is a matter of concern best placed jointly in the hands of the school and community. Factors to be considered are probably unique within each individual school district. Any decision concerning grouping should be made only after careful consideration of all factors, pro and con.

Arguments for and against homogeneous grouping are varied and numerous. Arguments against the value and importance or the child's self-concepts are non-existent. For a school system considering a three-track classroom organization or some similar homogeneous plan, a major consideration is therefore whether or not such a method of ~~class~~room grouping contributes toward positive or negative pupil self-concepts.

### CHAPTER III

#### ORGANIZATION OF MATERIALS AND TEST PROCEDURES

##### I. DESIGN OF THE QUESTIONNAIRE

This was a special study with special objectives. As has been pointed out by Allen L. Edwards (5:1), when a research worker is interested in a particular segment of attitude measurement, he may find no suitable scale available. It is then necessary for him to construct his own scale.

Items were selected following the fourteen "Informal Criteria for Attitude Statements" by Edwards (5:13) and certain recommendations by Gordon (9:Ch.3). It should be pointed out that due to the character of attitude testing, questionnaires are still somewhat in the experimental stage (18:61).

The instrument was limited to academic and school-related social aspects of self-concepts. Seven items only were selected due to the age of the subjects. The scope of the questionnaire hopefully reveals something of the thoughts of the children involved. No attempt was made to take a random sampling of all aspects of the self-concept. As is pointed out by Richard Brandt (1:61), this is probably not possible anyway.

A copy of the survey device is attached as Appendix

A.

## II. TEST PROCEDURES

School. The Island View Elementary School, Anacortes, Washington was used in the survey. Island View Elementary School was eight years old, contained 24 classrooms including eight newer rooms which were added two years ago. It had a gymnasium, cafeteria, and an adequate library with a full time librarian.

Island View was organized on a combination homogeneous and heterogeneous system. The kindergarten consisted of two heterogeneous sections. All three sections of grades 1-3 were grouped according to ability (rated high, middle, and low), based on intelligence and achievement as determined by standardized tests, teachers' judgment, and teacher-made tests. Grades 4-6 were heterogeneous, the children being divided equally among each of three rooms in each grade on a strictly random basis.

Subjects. All the children who completed the homogeneous third grade during the school year of 1966-1967 completed the questionnaire. All of those same pupils who completed the heterogeneous fourth grade in the same school, were asked to answer the same questionnaire the following

year. Only those who completed both third and fourth grades at Island View were included.

In the Anacortes School District, children of extremely low ability are enrolled in separate classes at another school under a special education program. Therefore, no children of extremely low ability were included in this study.

Administration of the test. The tests were administered by the writer under controlled conditions and with standardized instructions.

Each class was tested separately in its own classroom with the teacher present. Children were instructed to respond to each item only after all three choices had been read to them aloud as they read along silently. Response was made by making a mark within the box indicating the answer of their choice. Items were handled one at a time and all pupils marked their selections before the entire group turned its attention to the next item.

## CHAPTER IV

### INTERPRETATION OF THE DATA

In this study, the major objective was to compare the results of the 1967 and the 1968 self-concept surveys.

Three categories of response were permitted. In working beyond the raw data to establish a meaningful index, responses were weighted by degree. The most favorable response was given the weight of 2, the intermediate response, 1, and the least favorable, a weight of zero.

Compilations of the weighted data are shown in Table II for the highest group, Table III for the middle group, and Table IV for the lowest group. Raw data on which this study is based can be found in the appendix.

In this chapter, each item on the questionnaire is discussed in relation to each ability group and in relation to any change which occurred during the period of the study.

Secondly, an interpretation of the average overall changes in self-concepts is made. These self-concepts are examined to determine whether or not they have any statistical significance.

#### I. DISCUSSION OF INDIVIDUAL ITEMS

Question number 1. The first item asked the children to select one of the following:



TABLE II  
SELF-CONCEPT TEST SCORES FOR THE  
HIGH ABILITY GROUP

Question number	In homogeneous class 1967		In heterogeneous class 1968		Increase or decrease of average
	Weighted total	Weighted average	Weighted total	Weighted average	
1.	24	1.26	26	1.37	+.11
2.	23	1.21	22	1.10	-.05
3.	29	1.53	32	1.69	+.16
4.	15	.79	20	1.05	+.26
5.	16	.84	21	1.11	+.27
6.	26	1.37	29	1.53	+.16
7.	29	1.53	30	1.58	+.05
Totals	160	1.20	180	1.34	+.15

N = 19

Averages are rounded to two decimal places.

TABLE III  
SELF-CONCEPT TEST SCORES FOR THE  
MIDDLE ABILITY GROUP

Question number	In homogeneous class 1967		In heterogeneous class 1968		Increase or decrease of average
	Weighted total	Weighted average	Weighted total	Weighted average	
1.	29	1.26	28	1.22	-.04
2.	21	.91	23	1.00	+.09
3.	40	1.74	26	1.13	-.61
4.	17	.74	20	.87	+.13
5.	20	.87	18	.78	-.09
6.	35	1.52	34	1.48	-.04
7.	24	1.04	25	1.09	+.05
Totals	186	1.16	174	1.08	-.08

N = 23

Averages are rounded to two decimal places.

TABLE IV  
SELF-CONCEPT TEST SCORES FOR THE  
LOW ABILITY GROUP

Question number	In homogeneous class 1967		In heterogeneous class 1968		Increase or decrease of average
	Weighted total	Weighted average	Weighted total	Weighted average	
1.	19	1.58	14	1.17	-.41
2.	10	.83	10	.83	.00
3.	20	1.67	8	.67	-1.00
4.	10	.83	10	.83	.00
5.	13	1.08	10	.83	-.25
6.	17	1.42	15	1.25	-.17
7.	12	1.00	10	.83	-.17
Totals	101	1.20	77	.92	-.28

N = 12

Averages are rounded to two decimal places.

I like school.

I like school a lot.

I don't like school very much.

All groups, low, middle, and high, indicated responses on the positive side at the end of the third grade.

The high group showed a positive change during the fourth grade, the middle group almost no change, and the low group showed a definite negative change.

Reasons for the changes are open to speculation. These changes may have resulted from new experiences in the heterogeneous classes which encouraged and eased the burden of the high group as well as factors which increased the anxiety and degree of difficulty for the less able.

Question number 2. The second question asked the child to choose among:

School work is easy.

School work is hard.

School work is about right.

In 1967, the year that all pupils had been in homogeneous classrooms, the highest group made a definitely positive response. The middle group made a slightly negative response and the low class a definitely negative one.

Contributing factors here might have been use of the same curriculum guide for all classes and possibly efforts of the lower group's teacher to "catch-up" her pupils.

Changes indicated during the following year were almost nil. Each fourth grade teacher may have been allowing for individual differences. Grouping within the classrooms may have presented a situation of comparable difficulty to that which most of the children encountered during their third grade experience.

Question number 3. The selections offered to the children on this item included:

I have friends in school.

I have lots of friends in school.

I wish I had more friends in school.

When questioned following the homogeneous 1967 school year, all classes indicated a definitely positive attitude.

After the fourth grade experience, the high group showed some gain. Both the middle and low showed a large negative change with the greatest change in the low group.

Possibly each third grade class member felt secure and at ease among children with similar abilities and interests whom he could consider his equals. The changes which took place might have been caused by a rude shock which may have resulted when those of lesser ability were placed in a heterogeneous classroom among children from the top group.

Question number 4. The alternatives offered in this item were:

I think I do well in school.

I think I don't do very well.

I do better than most of my classmates.

Surprisingly, all classes, when first questioned, responded rather negatively. When they answered the same question later, the largest positive increase was registered by the highest group, a somewhat lesser increase by the middle group, and no change was made by the low group.

Reasons for the improvements in self-rating may be the change to a heterogeneous setting. As the children are among others of a greater or lesser ability, they gain a concept of themselves which better approximates their ability to achieve.

The changes shown here during the school year are probably just as one might have predicted.

Question number 5. This item dealt with the child's concept of his own intelligence. The choices were:

Most of my classmates are smarter than I am.

I am smarter than most of my classmates.

Most of my classmates are about the same as I am.

The upper and middle groups showed a slight negative concept of their own intelligence when first questioned. A positive response was shown by the lowest group. This would indicate that the children were comparing themselves with

their third grade classmates and did not have a proper perspective of how they actually compared with all third graders in their school.

The second questionnaire showed a complete, quite predictable, change with the highest group gaining a large increase, the middle group with little change, and the low group with a large loss.

This would seem to be a quite logical result since these children had now had a year's experience comparing themselves with a cross-section of pupil abilities.

Question number 6. These were offered for the pupil's choice:

School is O.K.

School is fun.

School is not much fun.

When first questioned as third-graders, all groups made a definite positive reply with the middle group scoring highest.

The second set of answers showed the highest group with a good increase, the middle group with little change, and the low group with a rather large decrease.

These changes may reflect a composite of individual social and academic successes and failures during the fourth grade experience.

Question number 7. This question was different from those which had previously been asked of the children. It dealt with what the individual thought others thought about him.

My family is happy with my school work.

My family thinks I should do better.

My family thinks I do about right.

As third graders, the highest group indicated that their families were well pleased compared with the other two groups. There was little difference in the responses of the low and middle groups.

The end of the heterogeneous fourth grade experience showed little change for the middle and high classes while the lowest group showed a distinct drop in their views of family opinions.

Possibly, parents of children in the two highest levels had a fairly accurate idea of their child's ability to achieve while parents of the low children reflected their children's disappointments when members of the low group found themselves compared with those of greater ability. It might also be a result of lower grades brought about by teachers' comparisons of children of a wider range of academic talents. It is also conceivable that the children selected the answer which reflected what they believed their parents should think.



## II. DISCUSSION OF OVERALL RESULTS

By inspection. The average concept level as measured by the initial questionnaire used in this study showed very similar total average scores for all three homogeneous class groups. Both high and low groups scored 1.20 on the scale while the middle group scored a very close 1.16.

Results of the second testing placed the high group at an average score of 1.34, a gain of .14. The middle group was at 1.08, a loss of .08 and the low group at 0.92, a loss of .28.

By inspection, these results may seem to be what one might expect and might appear significant in that the highest self-rating score was made by the top group and the lowest by the bottom group while the middle group was in between. It was observed that the highest group showed an increase in average change in six of the seven items. The middle group showed increases in three and decreases in four. The low-track children showed no increase in any category and in fact had a decrease in five.

It may be sufficient here to assume that there is a difference in the self-concepts of children grouped heterogeneously and those grouped homogeneously.

By statistical analysis. The hypothesis to be tested was the null hypothesis: that there is no difference in

self-concepts between children in a three-track classroom grouping and children in a heterogeneous classroom grouping.

Working with the data dealing with changes in overall average scores for each track, the writer decided to use a t-test. A level of significance of .05 was selected due to the relatively small number of subjects.

With six degrees of freedom, the .05 level of significance requires a t-test score of less than 2.45 for retention of the hypothesis.

The average change of the scores of the low ability group had a standard deviation of .32. The t-test score was 2.143. The hypothesis was therefore retained for this group.

Average change of the middle-track group yielded a standard deviation of .23. The t-test result was .852. Again, the hypothesis was retained under these conditions.

For the top group, the standard deviation of the average change in responses was .1. The t-test score was found to be 3.429. This figure indicates that the hypothesis of no difference be rejected.

## CHAPTER V

### CONCLUSIONS AND RECOMMENDATIONS

It was the purpose of this study: (1) to measure self-concepts of children who have been in a homogeneous class grouping in a three-track elementary school, (2) to measure self-concepts of the same children after one year of experience in a heterogeneous class grouping, and (3) to present a comparison of these two attitude surveys.

#### I. CONCLUSIONS

Attitude changes appear to have taken place during the course of this study.

When the data was observed by inspection, several significant trends were noted. The highest group in the three-track system rated itself highest on the second questionnaire and showed a positive change. The middle-track group, which rated itself between the others, had the least change of any class. The low group rated itself lowest of the three on the last questionnaire and had a relatively large negative change.

For the top group, almost all changes were upward. A statistical significance was shown.

Grouping homogeneously may have given these top children a lower self-estimate than heterogeneous grouping

might have. A false impression may have developed because of comparisons with classmates of similar capabilities.

The greatest changes in self-concepts concerned the childrens' views of how well they did academically and how intelligent they thought they were. It is quite possible that only one year in a heterogeneous classroom after three years of ability grouping may have inflated their self-concept beyond reality. If these children had been in a heterogeneous situation, self-concept changes might have been reduced or possibly non-existent.

The middle group showed little change in self-concepts as measured on this scale. They appeared to have approximately the same concept of self whether grouped heterogeneously or within the three-track structure.

The greatest change for this group appeared in the third question which dealt with the social factor of number of friends. The large negative change may be explained by the later presence of high ability children in a new class social structure in which former leaders within the middle group found new and unaccustomed competition for that leadership.

Due to the absence of any notable overall change, it seems that in other respects, the children of this group had a fairly accurate perspective of themselves regardless

of the method of class organization. Statistical analysis of the changes in concepts seem to bear this out.

Inspection shows that nearly all concepts changed negatively for members of the low group. By far, the greatest change was in the socially oriented third question which dealt with friendships within the school. Though other negative changes were apparent, this was by far the most dramatic.

Statistically, there was not a significant change in the attitudes of this group during the period of this study. However, the absence of any positive change tells one that something took place in their concept of self. One might assume that keener competition, more difficult assignments, lower marks, a change in social structure, a depressed feeling of competence, and many other possible factors have had an influence here.

## II. RECOMMENDATIONS

Variables beyond control were present in this study. Undoubtedly, the teacher variable would make a one year study of this nature relatively inconclusive regarding the issues of attitude change. Whether a teacher assigned to high, middle or low groups affects children any differently depending on her assignment is often discussed and surely is an area worthy of exploration.

A one-time, one year study of this nature has its distinct limitations and should be regarded as an indication of possible, rather than definite, evidence of self-concept differences. Another approach to the study of homogeneous-heterogeneous self-concepts which might be considered is use of a control group of children in a heterogeneously organized school for comparison with pupils in a homogeneously organized school.

It is recommended that self-concepts of the child be considered when organizing class groups for instruction of children. Regardless of the method of pupil placement into classes, careful consideration must be made of all factors leading toward educational objectives. Circumstances are so varied from one locality to another that no one pattern of organization can be said to be superior to all others. Decisions to group according to ability should be made only if there is a definite reason to believe that it will be an advantage to the learner.

## BIBLIOGRAPHY

## BIBLIOGRAPHY

1. Brandt, Richard M. "The Accuracy of Self-Estimate: A Measure of Self-Concept Reality," Genetic Psychology Monographs, 58:55-99, 1958.
2. Burr, James B., William Coffield, Theodore J. Jensen, and Ross L. Neagley. Elementary School Administration. Boston: Allyn and Bacon, Inc., 1963. 488 pp.
3. Dean, Stuart E. Elementary School Administration and Organization. Washington, D.C.: U.S. Department of Health, Education, and Welfare, 1960. 126 pp.
4. Dipasquale, Vincent C. "Dropouts and the Graded School," Phi Delta Kappan, 46:129-33, November, 1964.
5. Edwards, Allen L. Techniques of Attitude Scale Construction. New York: Appleton-Century-Crofts, Inc., 1957. 256 pp.
6. Ellsworth, Sterling G. "Building the Child's Self-Concept," N.E.A. Journal, 56:54-56, February, 1967.
7. Festinger, Leon A. A Theory of Cognitive Dissonance. Evanston, Illinois: Row, Peterson, and Company, 1957. 291 pp.
8. Goodlad, John I. and Robert H. Anderson. The Nongraded Elementary School. New York: Harcourt, Brace, and World, Inc., 1963. 248 pp.
9. Gordon, Ira J. Studying the Child in the School. New York: John Wiley and Sons, Inc., 1966. 145 pp.
10. Grieder, Calvin, Truman M. Pierce, and William Everett Rosenstengel. Public School Administration. New York: The Ronald Press Company, 1961. 642 pp.
11. Hall, Alice. "Ability Grouping is Democratic," The Clearing House, 40:159-61, November, 1965.
12. Lee, Murray J. and Dorris May Lee. The Child and His Curriculum. New York: Appleton-Century-Crofts, Inc., 1960. 596 pp.
13. Mayer, Martin. The Schools. New York: Harper and Brothers, 1961. 446 pp.



14. Noar, Gertrude. "The Nature of Human Relations Problems in the Classroom," North Central Association Quarterly, 39:196-99, Fall, 1964.
15. Olson, Jim. "Should We Group by Ability?" The Journal of Teacher Education, 18:201-5, Summer, 1967.
16. \_\_\_\_\_. "Opinion Poll," The Nation's Schools, 51:6, November, 1955.
17. Otto, Henry J. Elementary School Organization and Administration. New York: Appleton-Century-Crofts, Inc., 1954. 719 pp.
18. Pressey, Sidney L., Francis P. Robinson, and John E. Harrocks. Psychology in Education. New York: Harper and Brothers, 1959. 658 pp.
19. Sachs, Benjamin M. Educational Administration, A Behavioral Approach. Boston: Houghton Mifflin Company, 1966. 412 pp.
20. Schottman, Thomas. "Still Groping in Grouping?" The National Elementary Principal, 41:53-54, September, 1961.
21. Strang, Ruth. The Adolescent Views Himself. New York: McGraw-Hill Book Company, Inc., 1957. 581 pp.
22. \_\_\_\_\_. An Introduction to Child Study. New York: The Macmillan Company, 1959. 543 pp.
23. Stroops, Emery and Russell E. Johnson. Elementary School Administration. New York: McGraw-Hill Book Company, 1967. 436 pp.
24. Stroops, Emery and M. L. Rafferty Jr. Practices and Trends in School Administration. Boston: Ginn and Company, 1961. 558 pp.

## APPENDIXES

APPENDIX A  
QUESTIONNAIRE

1. ☐ I like school.  
☐ I like school a lot.  
☐ I don't like school very much.
2. ☐ School work is easy.  
☐ School work is hard.  
☐ School work is about right.
3. ☐ I have friends in school.  
☐ I have lots of friends in school.  
☐ I wish I had more friends in school.
4. ☐ I think I do well in school.  
☐ I think I don't do very well.  
☐ I do better than most of my classmates.
5. ☐ Most of my classmates are smarter than I am.  
☐ I am smarter than most of my classmates.  
☐ Most of my classmates are about the same as I am.
6. ☐ School is O.K.  
☐ School is fun.  
☐ School is not much fun.
7. ☐ My family is happy with my school work.  
☐ My family thinks I should do better.  
☐ My family thinks I do about right.

APPENDIX B

RAW DATA FOR HIGH ABILITY GROUP

	<u>1967</u>	<u>1968</u>
1. I like school.	10	12
I like school a lot.	7	7
I don't like school very much.	2	0
2. School work is easy.	4	3
School work is hard.	0	0
School work is about right.	15	16
3. I have friends in school.	5	2
I have lots of friends in school.	12	15
I wish I had more friends in school.	2	2
4. I think I do well in school.	15	18
I think I don't do very well.	4	0
I do better than most of my classmates.	0	1
5. Most of my classmates are smarter than I am.	3	1
I am smarter than most of my classmates.	0	3
Most of my classmates are about the same as I am.	16	15
6. School is O.K.	12	9
School is fun.	7	10
School is not much fun.	0	0
7. My family is happy with my school work.	10	13
My family thinks I should do better.	0	2
My family thinks I do about right.	9	4

APPENDIX C

RAW DATA FOR MIDDLE ABILITY GROUP

	<u>1967</u>	<u>1968</u>
1. I like school.	11	10
I like school a lot.	9	9
I don't like school very much.	3	4
2. School work is easy.	2	1
School work is hard.	4	1
School work is about right.	17	21
3. I have friends in school.	6	8
I have lots of friends in school.	17	9
I wish I had more friends in school.	0	6
4. I think I do well in school.	13	14
I think I don't do very well.	8	6
I do better than most of my classmates.	2	3
5. Most of my classmates are smarter than I am.	3	7
I am smarter than most of my classmates.	20	2
Most of my classmates are about the same as I am.	0	14
6. School is O.K.	11	10
School is fun.	12	12
School is not much fun.	0	1
7. My family is happy with my school work.	7	7
My family thinks I should do better.	6	5
My family thinks I do about right.	10	11



APPENDIX D

RAW DATA FOR LOW ABILITY GROUP

	<u>1967</u>	<u>1968</u>
1. I like school.	5	6
I like school a lot.	7	4
I don't like school very much.	0	2
2. School work is easy.	3	0
School work is hard.	5	2
School work is about right.	4	10
3. I have friends in school.	2	4
I have lots of friends in school.	9	2
I wish I had more friends in school.	1	6
4. I think I do well in school.	6	8
I think I don't do very well.	4	3
I do better than most of my classmates.	2	1
5. Most of my classmates are smarter than I am.	1	4
I am smarter than most of my classmates.	2	2
Most of my classmates are about the same as I am.	9	6
6. School is O.K.	5	3
School is fun.	6	6
School is not much fun.	1	3
7. My family is happy with my school work.	4	2
My family thinks I should do better.	4	4
My family thinks I do about right.	4	6